



41P09NE0045 2.4325 BRYCE

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NOV 23 1981

REPORT  
on the  
GEOLOGY OF CLAIM GROUPS A, B and C,  
BRYCE TOWNSHIP,  
LARDER LAKE MINING DIVISION,  
ONTARIO  
for  
Petromet Resources Limited

MINING LANDS SECTION

Toronto, Ontario  
November, 1981

W.E. Brereton, P.Eng.,  
MPH Consulting Limited.

*quad on file: 2.1310*

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## 1.0 INTRODUCTION

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Active prospecting in the Bryce Township area south of the Kirkland Lake gold camp of northeastern Ontario during the 1920's and 1930's located numerous gold-bearing veins and showings, often of relatively good grade. The gold exposures were explored by surface trenching supplemented in a few cases by diamond drilling. Subsequent lack of interest in gold due to low metal prices eventually led to a cessation of gold exploration activity in the area.

The recent boom in gold exploration has re-focussed attention on the gold potential of the Bryce Township area. This report describes the geology, gold occurrences and economic potential of three mining properties in the township.

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2.0 PROPERTY

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There are three properties totalling 16 unpatented mining claims involved in the following discussion:

	<u>Claim Number</u>	<u>Location</u>
Group «A»	L 579229	SW 1/4 S 1/2 Lot 6 Con 5
	L 579230	SE 1/4 S 1/2 Lot 6 Con 5
	L 579231	NE 1/4 N 1/2 Lot 6 Con 4
	L 579232	NW 1/4 N 1/2 Lot 6 Con 4
	L 579236	NW 1/4 N 1/2 Lot 5 Con 4
	L 579237	NE 1/4 N 1/2 Lot 5 Con 4
Group «B»	L 579238	NW 1/4 S 1/2 Lot 8 Con 4
	L 579239	NE 1/4 S 1/2 Lot 8 Con 4
	L 579240	SE 1/4 S 1/2 Lot 8 Con 4
	L 579241	SW 1/4 S 1/2 Lot 8 Con 4
Group «C»	L 598215	NW 1/4 S 1/2 Lot 12 Con 6
	L 598216	NE 1/4 S 1/2 Lot 12 Con 6
	L 598217	SE 1/4 S 1/2 Lot 12 Con 6
	L 598218	SW 1/4 S 1/2 Lot 12 Con 6
	L 598219	NW 1/4 N 1/2 Lot 12 Con 5
	L 598220	NE 1/4 N 1/2 Lot 12 Con 5

All of the claims are situated within the Larder Lake Mining Division, Province of Ontario.

It was determined in the course of field work that the claim posts were not exactly at the corners of the Lots and Concessions. Claim post locations are shown on Maps 1 and 2 recognizing that the actual Petromet ground is that bounded by the appropriate Lot/Concession lines. Appendix I presents technical data statements pertaining to the properties.

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### 3.0 LOCATION, ACCESS AND INFRASTRUCTURE

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The claim groups are centred approximately 45 km south of Kirkland Lake in northeastern Ontario (see Location Map insets, Maps 1 and 2 at rear).

The area is readily accessible via Highway 560 which leads to Charlton from the TransCanada Highway, No. 11, at Englehart, Ontario. Concession roads and bush roads lead to the properties from the end of Highway 560 at Charlton.

Bush roads also lead into adjoining Tudhope Township from Highway 65, 4 miles south of the property area at Leeville. Hydro-electric power and a spur line of the Ontario Northland Railway are located at Leeville. There is also hydro-electric power transmission to the Hills Lake fish hatchery less than 5 miles by road to the east.

Miners and general labour are available from surrounding centres of supply such as Kirkland Lake, Elk Lake, Matachewan, Earleton, Haileybury and Cobalt.

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## 4.0 GEOLOGY

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### 4.1 General

The northern portion of the township containing the three claim groups straddles the boundary between the Catherine Group and the Skead Group of earliest Precambrian (Archean) volcanics. The Catherine Group is comprised of Mg-rich and Fe-rich tholeiitic basalt flows with Fe-rich tholeiites predominating at the top of the group.

The Skead Group consists mainly of massive calc-alkaline volcanic fragmental rocks of basalt, andesite, dacite and rhyolite composition. Some flows are present in the group. The fragmental rocks range from crystal tuff to tuff-breccia and flow breccia. The coarser fragmental rocks contain a wide variety of felsic fragments. The main source of the volcanic ejecta appears to have been a large volcanic centre in Skead Township to the north of the present property area. Recent government mapping has defined an additional volcanic centre in the vicinity of Heather Lake immediately south of the present ground.

The contact between these two formations crosses the township in an east-northeasterly direction to the north of Heather Lake. Present and previous work on this 'Contact Zone'

indicates that there is a major unit of interflow meta-sediments consisting of laminated cherty and tuffaceous rocks, containing pyrite and chalcopyrite, separating the two formations.

Porphyry and lamprophyre dykes intrude the volcanic rocks. An elliptical stock of feldspar porphyry containing several gold veins, the «Britcana Porphyry», occurs in the north-central portion of the property and underlies the west portion of Group 'A'. Another porphyry body located by recent government mapping occurs in the west portion of the township immediately south of Honeymoon Lake.

The Round Lake granitic batholith occurs in the northwest corner of the township.

Rock units generally strike east-northeast to northeast and are steeply to vertically dipping. There is no evidence of any fold closures in the immediate property area. Pillows in the Catherine basalts indicate tops to the southeast. Later schistosity clearly crosscut previously existing foliations in some areas.

The area is located between two major regional faults striking N 40°W, the Cross Lake Fault and the Montreal River Fault.

A study of the fracture pattern in Bryce Township indicates three prominent fracture directions; northwest, northeast to east-northeast and north-south. A major northeast-trending airphotographic linear herein termed the 'Sunday Creek Linear' passes to the south of the properties. These fractures are important in that most of the gold mineralization recognized to date in the area is controlled by one of the above fracture directions, e.g. the Briscoe-Bryce No. 1 Vein Zone.

#### 4.2 Mineralization

A 1941 Ontario Department of Mines report describes 34 gold prospects in the Bryce-Robillard area (Moorhouse, Vol. 1, Part 4, ODM Annual Report, 1941). The above author classified the more important gold occurrences into a number of types according to structure and mineralization as follows:

- a) mineralized shear zones
- b) mineralized porphyries
- c) mineralized joints and shear zones in granite

The first group consists of deposits that occur in 1) northeast-trending zones; 2) north-south zones and 3) northwest-trending zones. In the northeast-trending zones, three types were recognized: 1) those mineralized with disseminated

pyrite and other sulphides with quartz, ii) those mineralized with massive pyrite <sup>±</sup> quartz and iii) those mineralized with pyrite accompanied by chrome, mica and quartz.

The Briscoe-Bryce No. 1 Vein Zone would be an excellent example of a mineralized shear zone of type ii).

The present author recognizes an additional and very important type of gold occurrence in the area, namely gold associated with laminated interflow sedimentary horizons consisting of cherty and tuffaceous material containing stratiform laminae and disseminations and stringers of pyrite and chalcopyrite. These units are typically sheared and show varying degrees of sericitization, carbonatization and chloritization. This variety would be analogous to Moorhouse's mineralized shear zones of type a-1. The Contact Zone on the Briscoe-Bryce property and reported occurrences on the J.R. Campbell property would be of this type. Much of the ore from some of the world's major gold deposits such as Amoco's Detour deposit and the Dome Mine at Timmins is derived from orebodies of this type.

Moorhouse notes that gold values in the area do not appear to be confined to any one mineral. Samples of apparently pure pyrite taken by that author gave a variable content of gold,



whether the pyrite was in porphyry country rock, in coarse cubes in vein material, massive in quartz veins or as massive pyrite.

Gold content of chalcopyrite-bearing samples is likewise variable being very high in some cases and negligibly low in others. Sphalerite, galena and arsenopyrite also do not appear to be indicative of gold values. Native gold has been found in most of the more interesting prospects such as the Briscoe-Bryce but in some, the gold is more closely associated with pyrite, probably as tiny grains in the pyrite crystal lattices.

The only serious attempt at commercial gold production in the township was from the Briscoe-Bryce No. 1 Vein Zone. There are no accurate records of the work but, according to Harold Briscoe Sr., a total of approximately 100 tons of ore was milled in a 60-75 ton per day mill installed on the property in the mid 1960's. The rock milled was taken from the decline and No. 1 and No. 2 shafts on the 'A' and 'C' zones respectively. Average grade of the mill feed is reported to have been in the 0.5 to 0.6 oz per ton range. The operation appears to have been relatively crude. In any event, the mill burned down in 1967 'before steady production had been achieved'.

There are reports of other ore shipments from the area  
although written documentation is scanty.

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## 5.0 PROPERTY GEOLOGY AND MINERALIZATION

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### 5.1 Claim Group 'A' (Map 1)

Geological traversing and prospecting along and between claim lines indicates a relatively simple geological picture for this group.

The northwest portion of the claims are underlain by the Britcana Porphyry. In this area, the Britcana Porphyry is a massive, white-weathering, predominantly feldspar porphyry consisting of white, apparently zoned plagioclase phenocrysts to 0.5 cm in a fine-grained, greenish chloritic matrix.

Regional considerations suggest that this porphyry represents a high level, possibly sub-volcanic intrusion along the contact between the Skead and Catherine Groups. Shear/fracture-controlled auriferous quartz veins are present within the porphyry on the old Britcana property adjoining to the west.

A minor amount of mafic to intermediate flows and pyroclastics of the Skead Group are exposed in the south portion of claim 579232.

Overlying these Early Precambrian rocks with profound regional unconformity are predominantly cobble to boulder conglomerates of the Gowganda Formation (Cobalt Group). These rocks are

exposed on claims 579231 and 579232 and are seen to consist of thick-bedded to massive, clast-supporting heterolithic conglomerate with a preponderance of cobble to boulder-sized clasts. Clast types include feldspar porphyry, various granites, intermediate and mafic metavolcanics and quartz. Boulders to 1 ft. or more are present.

A sill or dike of massive, medium-grained Nipissing diabase crosses the southeast corner at claim 579237. Although there is no outcrop exposure, the intervening area between the Gowganda sediments and the diabase is interpreted to be underlain by additional sediments of the Cobalt Group.

There are no gold occurrences on the property known from previous work or discovered in the course of the present work.

The most obvious potential for gold occurrences relates to:

- a) Au ( $\pm$  Ag, Cu) in shear-fracture zones in any of the rock types;
- b) «porphyry Au» associated with disseminated pyrite in the Britcana porphyry
- c) possible paleoplacers in the basal Gowganda Formation

More specific recommendations to further explore the gold potential of the property will be the subject of a later report.

Of geomorphological interest on the property is a crescentic ridge of well-rounded boulders which crosses the east portion of claim 579230. This is probably a former beach area of glacial lake Barlow-Ojibway in which all the fines have been winnowed out by wave action.

#### 5.2 Claim Group 'B' (Map 1)

Extensive traversing located only minimal outcropping on the actual property area.

It is evident from surrounding exposures, however, that the property is underlain predominantly by intermediate pyroclastics of the Skead Group.

Rock type «2f» is a pyroclastic tuff-breccia of andesitic composition. Outcrop exposure of this rock type, as in the central portion of claim 579241, can be spectacular with angular, white-weathering breccia fragments of feldspar porphyry to 1 ft. or more in a feldspar porphyritic crystal ash tuff matrix. Crude volcanic bedding is defined by clast size gradation. This bedding, where it can be measured, strikes northeast and dips vertically.

Feldspar porphyry of the Britcana variety intrudes the pyroclastics in the northeast portion of claim 579241. The porphyry contains mafic xenoliths to 8 in. and is clearly intrusive.

Lack of outcrop precludes an exact determination of the intrusive contact although the body is probably plug-like in form. Feldspar porphyry intrudes the volcanics immediately north of claims 579238 in the form of a 20 to 25 ft. northwest-striking dike.

There are no known gold occurrences on the property.

There is excellent potential for the presence of structurally-controlled gold-bearing veins judging from similar occurrences on adjoining claims. Recommendations will be presented as to further exploration on the claims.

### 5.3 Claim Group 'C' (Map 2)

This six claim property straddles the contact area of the Round Lake granitoid batholith with Catherine Group basaltic metavolcanics.

The Round Lake Batholith crops out extensively on the four northernmost claims. The predominant rock type is a medium-

grained whitish to greyish, foliated to relatively massive granitoid rock consisting of plagioclase, quartz and subordinate hornblende <sup>±</sup> chlorite. Recent government work indicates the rock to be of trondhjemitic composition, i.e. a rock allied to granodiorite but being more siliceous and notably more sodic.

Thin dykes of later granitic material intrude the main body as in southeast claim 598218.

Rocks best described as basaltic amphibolites outcrop extensively on claims 598219 and 598220. These are dark-weathering, green to green-black rocks composed primarily of amphibole. Some coarser varieties have a dioritic aspect and characteristic knobby, irregular weathering surface. The rocks are generally fine to medium-grained. Some porphyritic varieties were noted on claim 598220 with feldspar phenocrysts to 1 cm. Local ovoid patches of quartz <sup>±</sup> pyrite probably represent re-crystallized amygdules. One outcrop area on claim 598220 contains rounded granitoid balls to several cm or more in diameter. These appear to be identical compositionally to the Round Lake Batholith. A northeast-trending diabase dike transects this outcrop area. Narrow sills of feldspar porphyry intrude the amphibolite, in some cases clearly along shear zones.

The amphibolites typically possess a slabby foliation which is most probably of metamorphic origin. This foliation typically strikes east-northeast to northeast and dips gently to moderately west, i.e. into the Round Lake Batholith.

A geologically very interesting outcrop is now exposed in the northwest portion of claim 598219 following the draining of a beaver pond in this area. In the outcrop, the contact between amphibole lamprophyre, quartz-feldspar porphyry and amphibolitized mafic volcanics is exposed. The actual contact is marked by a «breccia dike» approximately 1 ft. wide containing angular clasts of the immediately adjacent lithologies, and some exotic types, in a carbonate matrix. The volcanics consist of a distinctive, epidotized volcanic breccia, probably a flow (pillow) breccia which shows distinct layering.

The amphibolitic rocks in general are clearly a higher metamorphic rank equivalent of the Catherine basalts extensively exposed in outcrop to the east of the property.

The contact between the amphibolites and the Round Lake Batholith is a gradational zone at least 1000 ft. in width consisting of rafts, blocks and xenoliths of amphibolite 'floating' in granitic material and amphibolite extensively injected with granitic material generally parallel to foliation.



### 5.3.1 Mineralization

The former Mearow-McCombe showing is located near the east boundary of claim 598217.

The showing area was located during the course of the present work (Map 2).

Four old trenches (pre-1940) expose a strike length of approximately 50 ft. of a strong shear zone in basaltic amphibolite. The shearing strikes at approximately  $240^{\circ}$  and dips steeply south to vertical. This is markedly discordant with foliation in nearby basaltic amphibolite which strikes northeast and dips 20 to  $30^{\circ}$  northwest.

The volcanics within the shear have been strongly chloritized over an exposed width averaging approximately 10 ft. The shear zone is bounded to the south by chloritic yet relatively massive mafic volcanics and to the north by a fine-grained granitic (aplitic) dike. The shear may be substantially wider, extending to the north under the beaver swamp in this direction.

The chloritic shear zone has been extensively invaded by quartz-carbonate material both as a pervasive 'soaking' and as laminated vein zones parallel to

schistosity. In one area, there is a zone approximately 1 ft. wide of seemingly barren, relatively pure, very brittle, incompetent dark quartz.

Pyrite is present as thin laminae with quartz-carbonate material, along fine fractures, as dissemination and as very local, massive blebs. Pyrite content generally averages 1/2 to 5% although is up to 15% or more in selected samples.

A total of 13 selected grab samples was collected from the old trenches and from rubble alongside the trenches to gain an indication of gold tenors, if any, in the shear zone. Assay results are presented on Map 2. Sample descriptions are given in Appendix II.

One of the samples, no. MM-81-9 returned a value of 2.65 oz Au per ton, confirmed by a check assay. Sample MM-81-2 returned 0.14 oz Au per ton. Seven of the remaining 11 samples returned better than 0.01 oz Au per ton, being in the range of 0.01 to 0.05 oz Au per ton.

It is evident, therefore, that the shear structure is gold-bearing. As indicated in old reports, the distribution, however, appears to be somewhat erratic.

The shear zone would appear to have excellent exploration potential considering the possible widths involved and the locally high grades. Recommendations will be presented to further evaluate the gold potential of the claims. A first step in any further work should be to 'freshen-up' the old trenching to allow a more systematic sampling across the entire shear structure.

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6.0 CONCLUSIONS

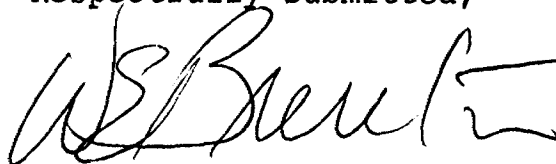
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A programme of geological mapping has been successful in determining the type and disposition of rock units on three properties in Bryce Township, northeastern Ontario.

All three properties are underlain by a series of Early to Middle Precambrian metavolcanic-metasedimentary rocks cut by a suite of intermediate to felsic intrusives.

All of the properties are concluded to have good gold potential considering their proximity to known occurrences or the presence of auriferous mineralization within the present property boundaries.

Respectfully submitted,



W.E. Brereton, P.Eng.

Toronto, Ontario  
November, 1981



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2.4325

August 28, 1982

Mr. George Koleszar  
Mining Recorder  
Ministry of Natural Resources  
4 Government Road East  
P.O. Box 984  
Kirkland Lake, Ontario  
P2N 1A2

Dear Mr. Koleszar:

Re: Geological Survey on Mining Claims L 579229 to  
32, inclusive, L 579236 to 41, inclusive and  
L 598215 to 20, inclusive in the Township of  
Bryce

The Geological Survey assessment work credits as shown  
on the attached statement have been approved as of the  
above date.

Please inform the recorded holder of these mining  
claims and so indicate on your records.

Yours very truly,

E. F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6540  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Telephone: (416) 965-1380

/las

Encl.

cc Petromet Resources Ltd.

cc W. E. Brereton, P. Eng.

cc Resident Geologist  
Kirkland Lake

Recorded Holder <b>Petromet Resources Ltd.</b>
Township or Area <b>Bryce Township</b>

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Section 86 (18) _____ days Geological <u>20</u> days Geochemical _____ days  Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/>  <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	L 579229 to 32, inclusive L 579236 to 41, inclusive L 598215 to 20, inclusive

**Special credits under section 86 (15a) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey                       Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60.



Mining Lands Comments

no traverse lines - I think maps are acceptable as submitted - CRK

To: Geophysics

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geology - Expenditures

*Mr Kustra*

Comments

Approved

Wish to see again with corrections

Date

*Mar 19/82*

Signature

*C Kustra*

To: Geochemistry

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)

1982 03 23

2.4325

Mr. W.E. Brereton  
MPH Consulting Limited  
706 - 141 Adelaide Street West  
Toronto, Ontario  
M5H 3L5

Dear Sir:

With reference to your geological report dated November, 1981, covering 16 mining claims in Bryce Township, I note that no traverse lines were shown on the maps. The Ontario Geological Survey has approved the survey as is, however, on future submissions please show the traverse lines on all geological maps.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1316

FW Matthews/amc



December 14, 1981

2.4325

Office of the Mining Recorder  
Ministry of Natural Resources  
4 Government Road East  
P.O. Box 984  
Kirkland Lake, Ontario  
P2N 1A2

Dear Sir:

We have received reports and maps for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L.579229 et al, in the Township of Bryce.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson  
Director  
Land Management Branch

Whitney Block, Room 6450  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-1380

J. Skura/bk

cc: Petromet Resources Ltd.  
Calgary, Alberta

cc: W.E. Brereton  
Toronto, Ontario



Ministry of  
Natural  
Resources

Notification of recording  
of assessment work credits

Recording Office  
4 Government Road East  
KIRKLAND LAKE, Ontario  
P2N 1A2

Lands Administration Branch  
Mining Lands Section  
Ministry of Natural Resources  
Room 1617, Whitney Block  
Queen's Park, Toronto  
M7A 1W3

**RECEIVED**

**DEC 1 - 1981**

**MINING LANDS SECTION**

Date of recording of work: NOVEMBER 9, 1981

Recorded holder: PETROMET RESOURCES LTD.

Address: Suite #2050, 300 - 5th Avenue S.W., CALGARY, Alberta T2P 3C4

Township or Area: BRYCE TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	L 598215 to L 598220 inclusive  6
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological <u>20</u> days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

*J. Bettel*  
Acting Mining recorder/bs  
c.c. Petromet Resources Ltd.  
c.c. W. E. Brereton, P.Eng.,  
Suite #706, 141 Adelaide Street West  
TORONTO, Ontario M5H 3L5



Ministry of  
Natural  
Resources  
Recording Office  
4 Government Road East  
KIRKLAND LAKE, Ontario  
P2N 1A2

Lands Administration Branch  
Mining Lands Section  
Ministry of Natural Resources  
Room 1617, Whitney Block  
Queen's Park, Toronto  
M7A 1W3

Notification of recording  
of assessment work credits

**RECEIVED**

**OCT 21 1981**

**MINING LANDS SECTION**

Date of recording of work: OCTOBER 8, 1981

Recorded holder: PETROMET RESOURCES LTD.

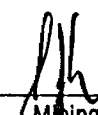
Address: 2050-300 5th Avenue S.W., CALGARY, Alberta T2P 3C4

Township or Area: BRYCE TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	L 579229 to L 579232 inclusive L 579236 and L 579237
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological <u>20</u> _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>

Notice to recorded holder:

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- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

  
Acting Mining recorder /bs  
c.c. Petromet Resources Ltd.  
c.c. W. E. Brereton, P. Eng.  
706 - 141 Adelaide Street West  
TORONTO, Ontario M5H 3L5



Ministry of  
Natural  
Resources  
Recording Office  
4 Government Road East  
KIRKLAND LAKE, Ontario  
P2N 1A2

Notification of recording  
of assessment work credits

Lands Administration Branch  
Mining Lands Section  
Ministry of Natural Resources  
Room 1617, Whitney Block  
Queen's Park, Toronto  
M7A 1W3

**RECEIVED**

**NOV - 5 1981**

**MINING LANDS SECTION**

Date of recording of work: OCTOBER 19, 1981

Recorded holder: PETROMET RESOURCES

Address: Suite #2050, 300 - 5th Avenue S.W., CALGARY, Alberta T2P 3C4

Township or Area: BRYCE

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	L 579238 to L 579341 inclusive
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological <u>20</u> _____ days	
Geochemical _____ days	
Man days <input checked="" type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/>	

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

*[Signature]*  
Acting Mining recorder /bs  
c.c. Petromet Resources  
c.c. W. E. Brereton P.Eng.,  
Suite #706, 141 Adelaide Street West  
TORONTO, Ontario M5H 3L5



**RECEIVED**

**NOV 23 1981**

**MINING LANDS SECTION**

Mr. Fred Mathews  
Room 6450, Whitney Block,  
Queen's Park,  
99 Wellesley Street West,  
Toronto, Ontario  
M7A 1W3

Dear Fred:

Enclosed are two copies of reports on geological surveys in Bryce Township, Ontario, submitted for assessment credit.

Yours very truly,

W.E. Brereton

WEB:sa  
Enclosure

**RECEIVED**  
Land Management Branch

CHANDLER   
LAWSON

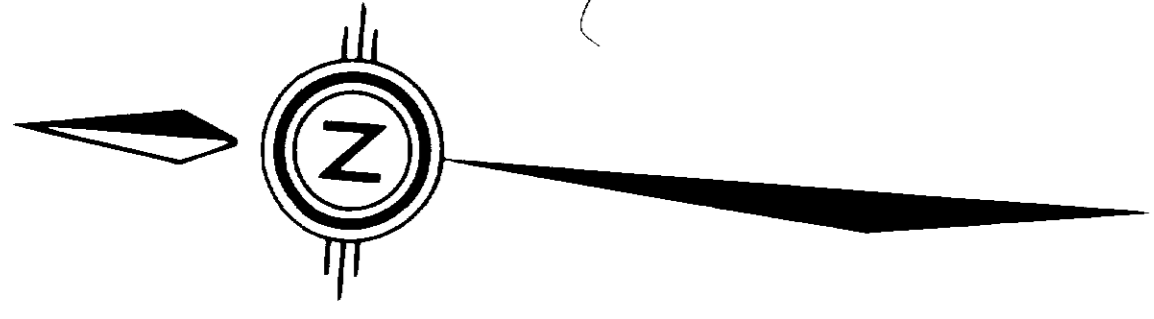
**NOV 23 1981**

MR. ANDERSON	
MR. BROWN	
MR. CHASE	
MR. COLE	
MR. DAVIS	
MR. FOSTER	
MR. GIBSON	
MR. HARRIS	
MR. JONES	
MR. KELLY	
MR. LEWIS	
MR. MILLER	
MR. NELSON	
MR. PHILLIPS	
MR. REED	
MR. SMITH	
MR. TAYLOR	
MR. WALKER	
MR. WHITE	
MR. WILSON	
MR. YOUNG	

TELEPHONE 634450







**LEGEND**

**MIDDLE PRECAMBRIAN**

- Nipissing Diabase
- Cobalt Group - Gowganda Formation
- Metacritic cobbles and boulder conglomerates

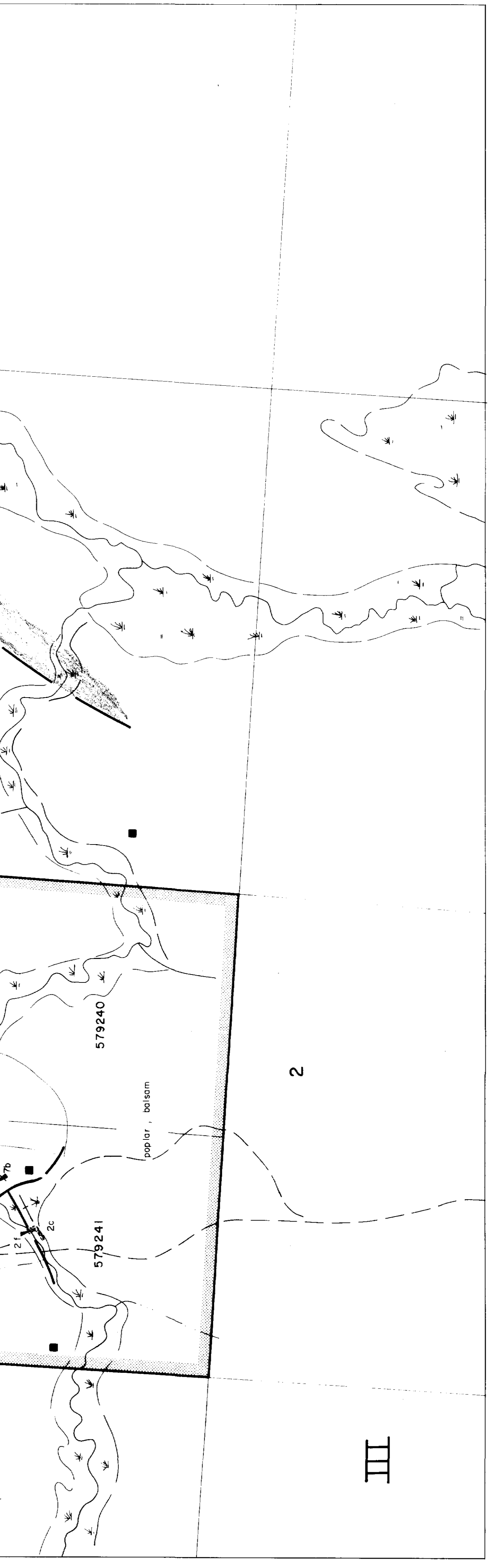
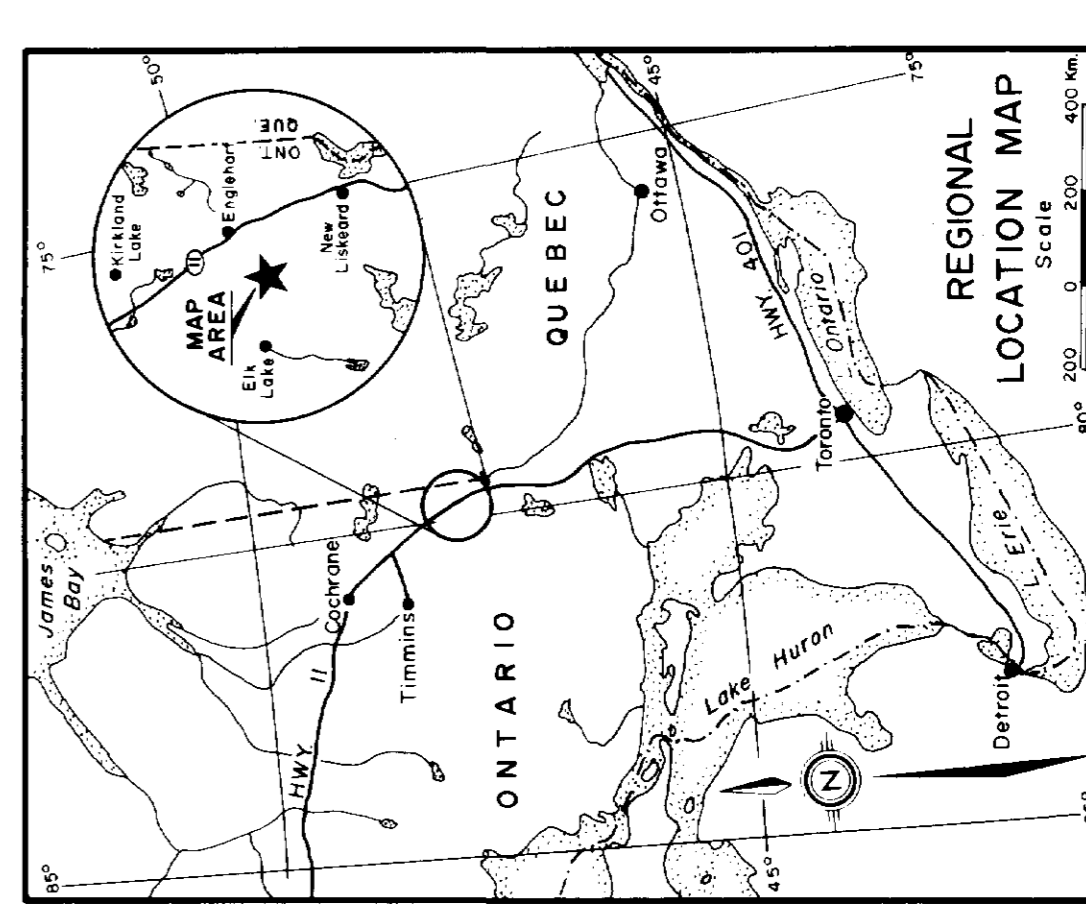
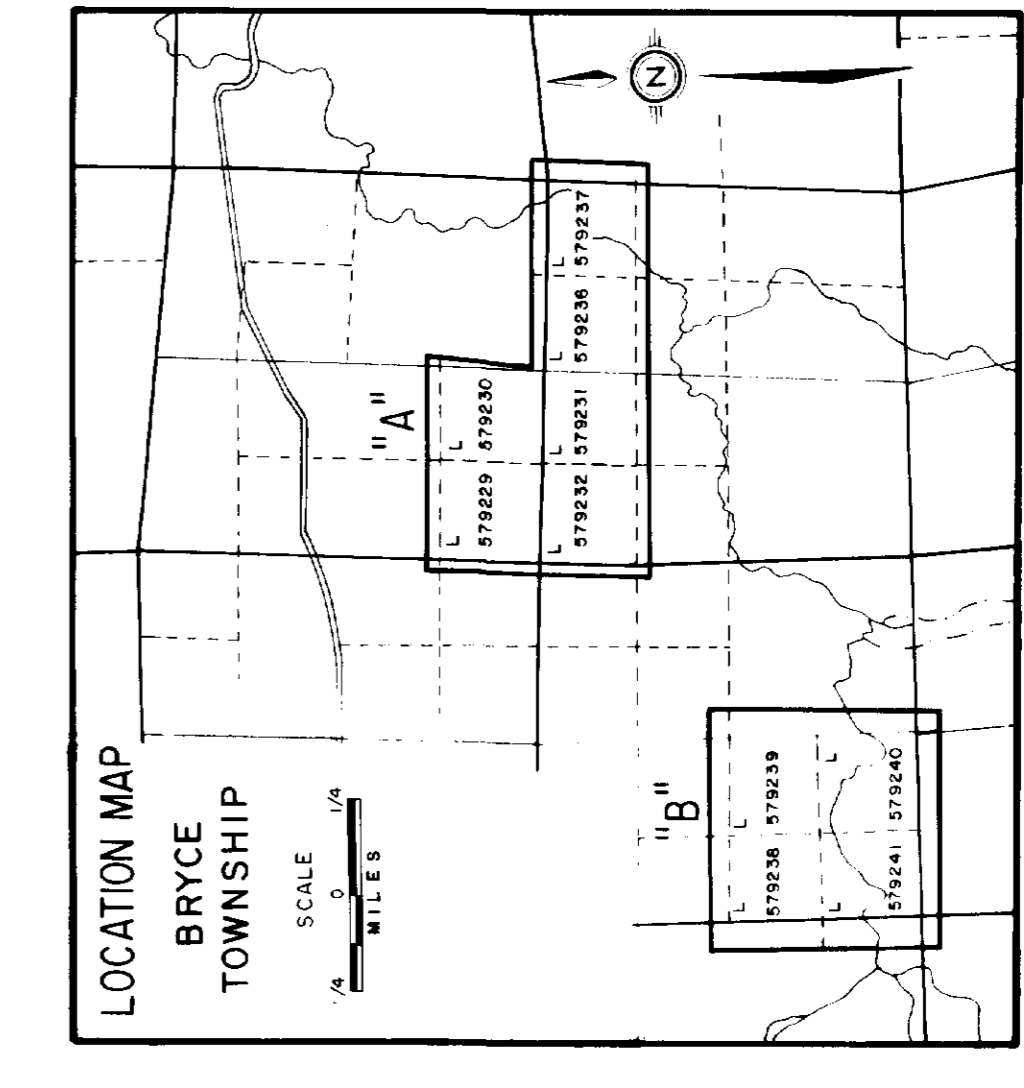
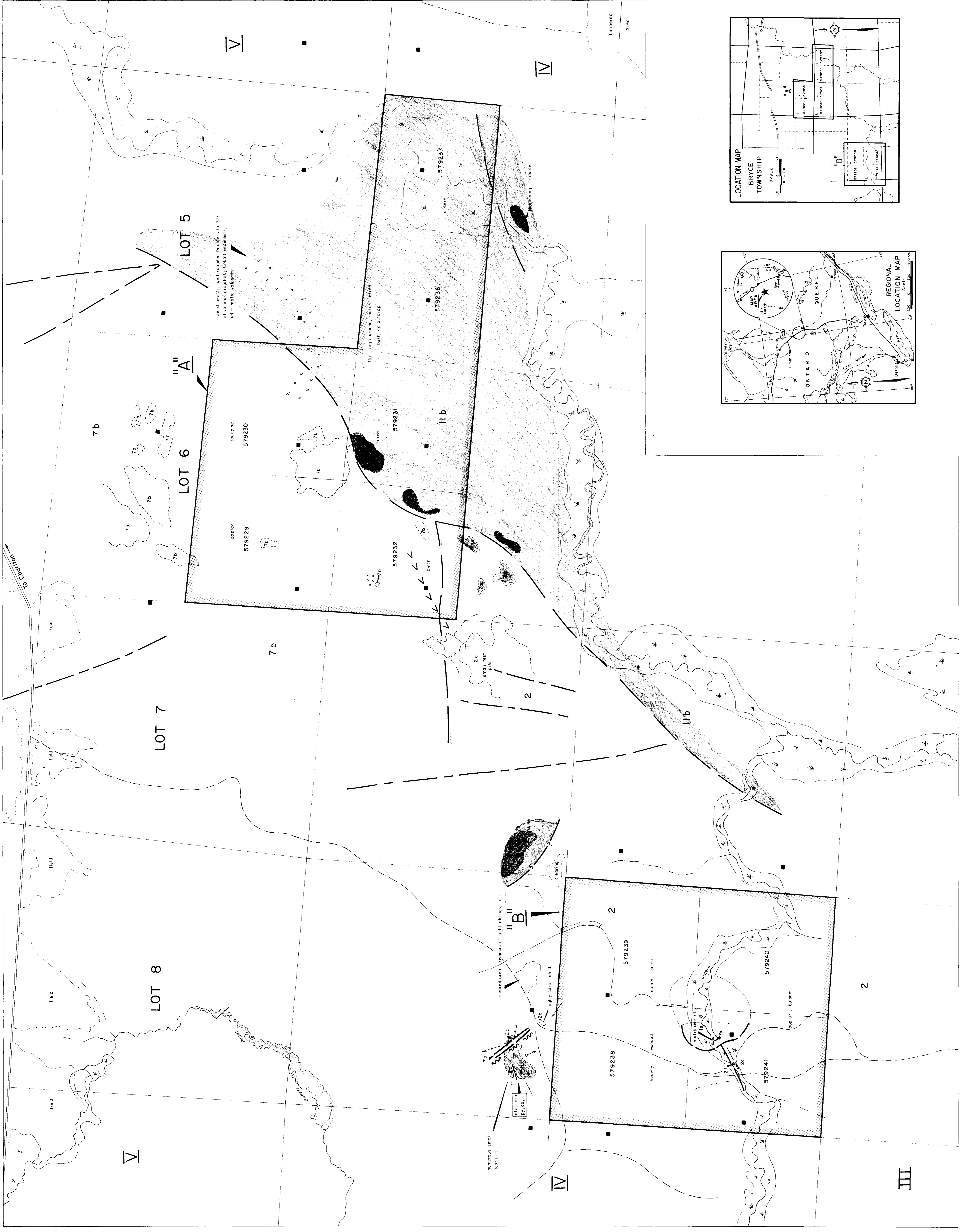
**EARLY PRECAMBRIAN**

**Metamorphosed Intrusive Rocks**

- Feldspar - quartz porphyry (mainly the "Brittona Porphyry")
- Finely porphyritic diorite
- Stead Group Pyroclastics
- Massive, mafic to intermediate lava and pillow lava
- Andesitic tuff, crystal ash tuff, lapilli - tuff
- Andesitic block tuff, pyroclastic tuff - breccia, volcanic breccia

**Geological Contact**

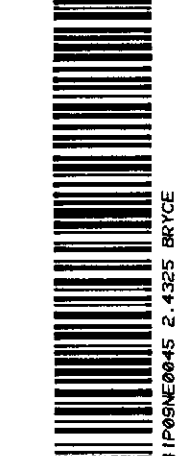
- Rock outcrop or area of rock outcrop, boulders
- Schistosity, inclined, vertical
- Volcanic or sedimentary bedding, inclined, vertical
- Prominent or photo linear
- Claim post, located, position approximate
- Trench or test pit
- Trail or bush road



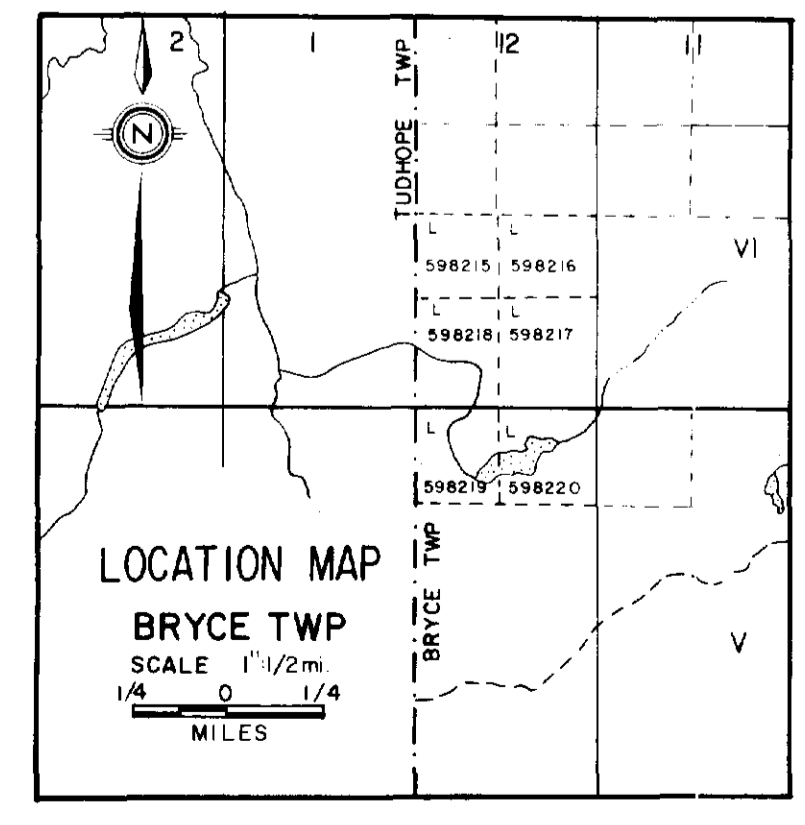
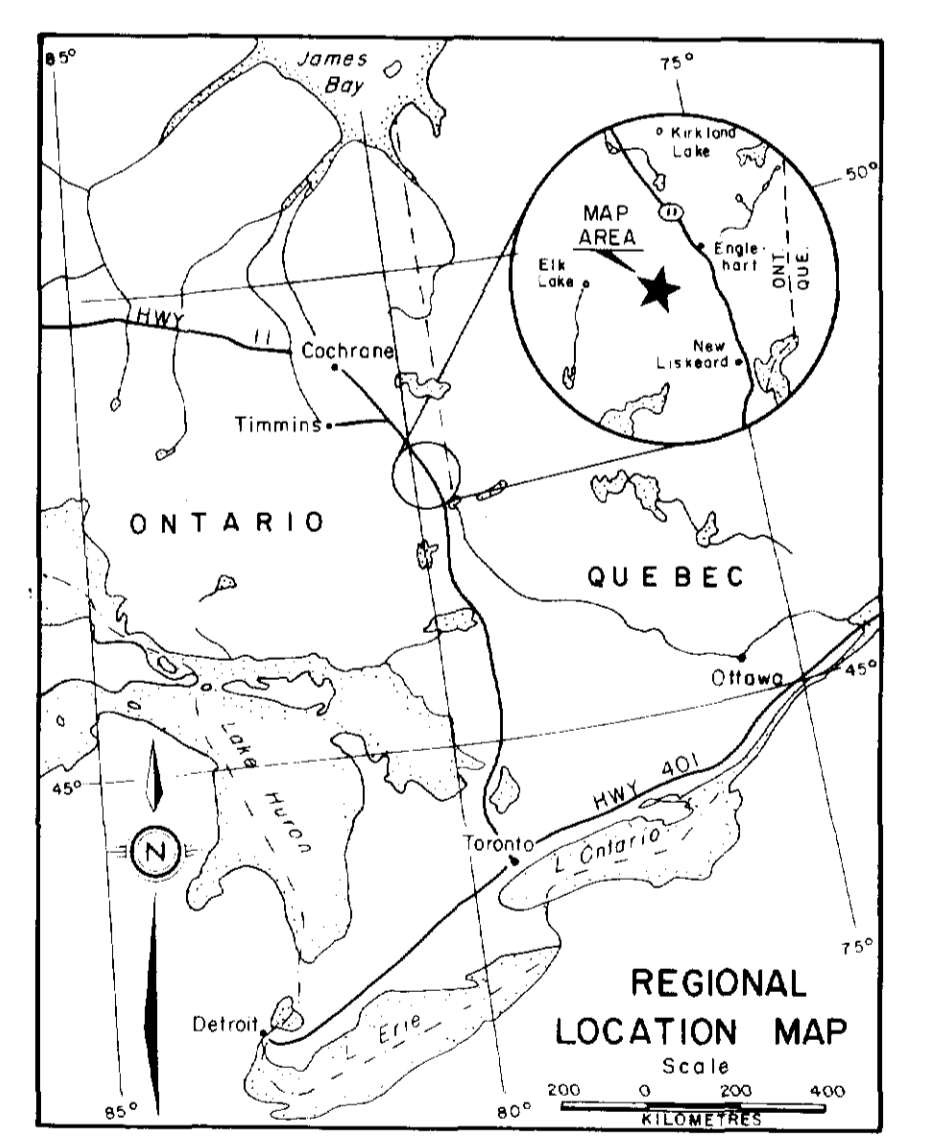
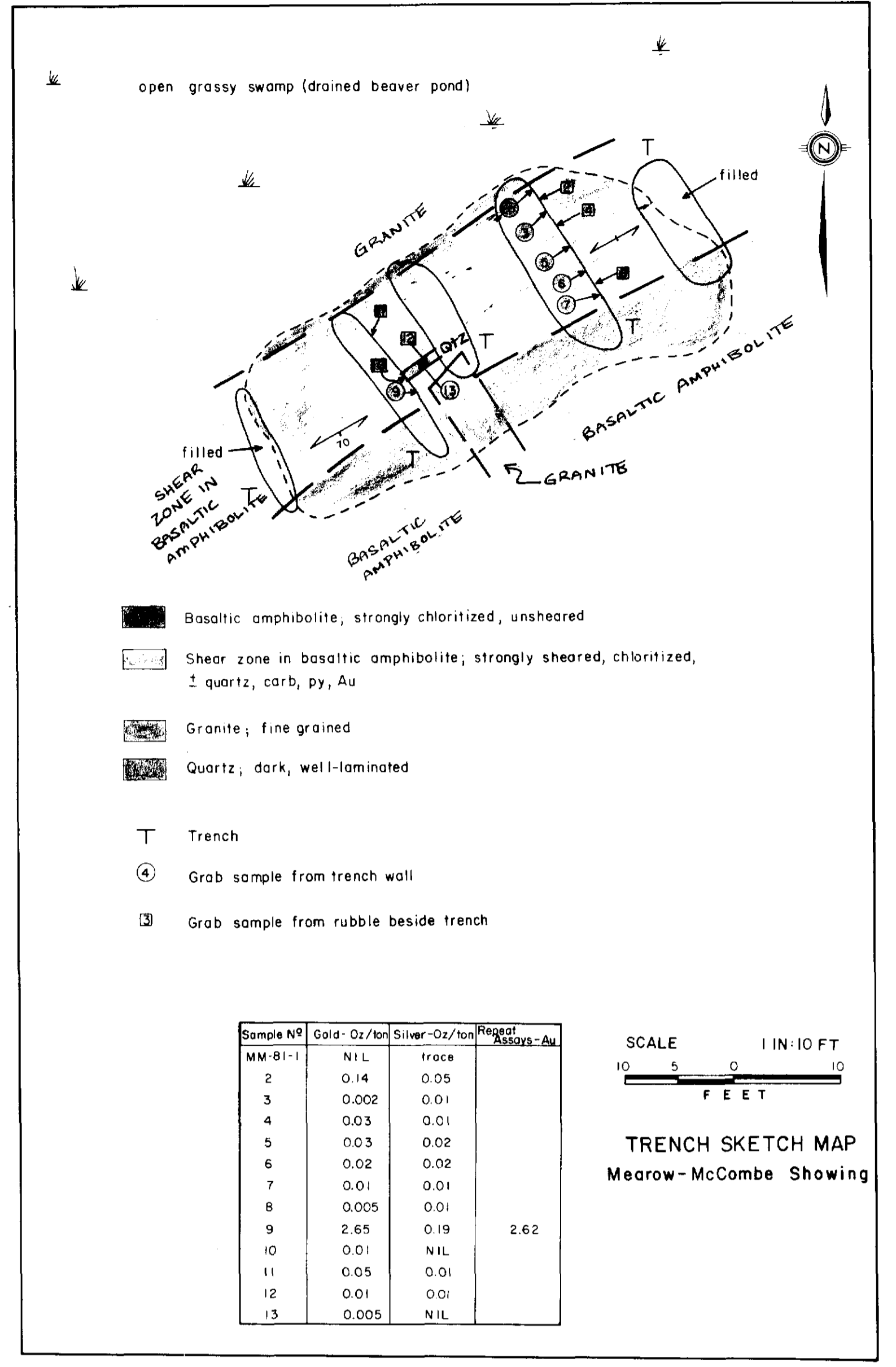
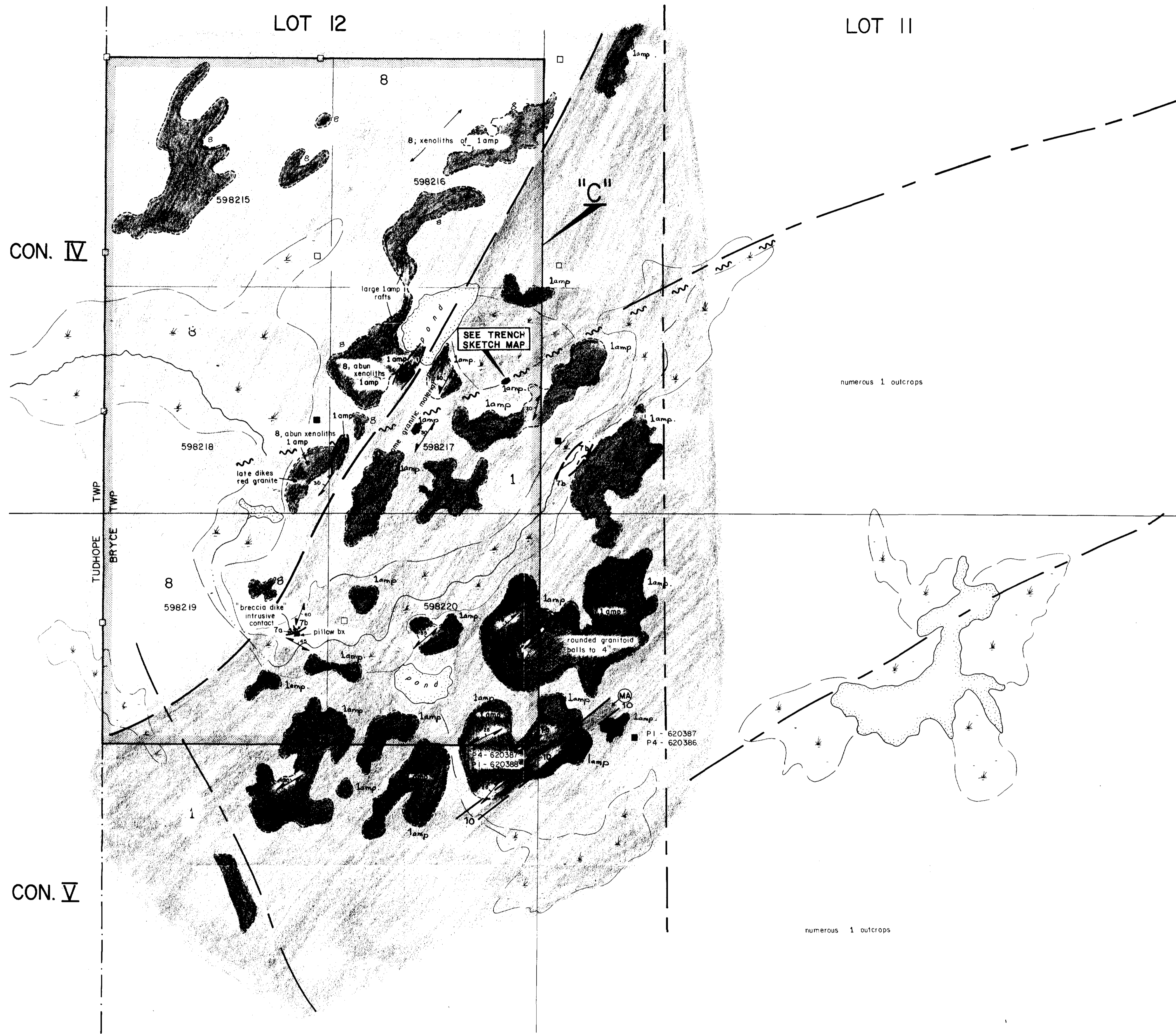
**PETROMET RESOURCES LTD.**  
 BRYCE TOWNSHIP, ONTARIO  
**CLAIM GROUPS "A" & "B"**  
**GEOLOGY**

Project No. C-465 By: W.E. Brecken  
 Scale: 1:4200 (Approx.) Drawn: GCS Limited  
 Drawing No. 1 Date: October, 1981

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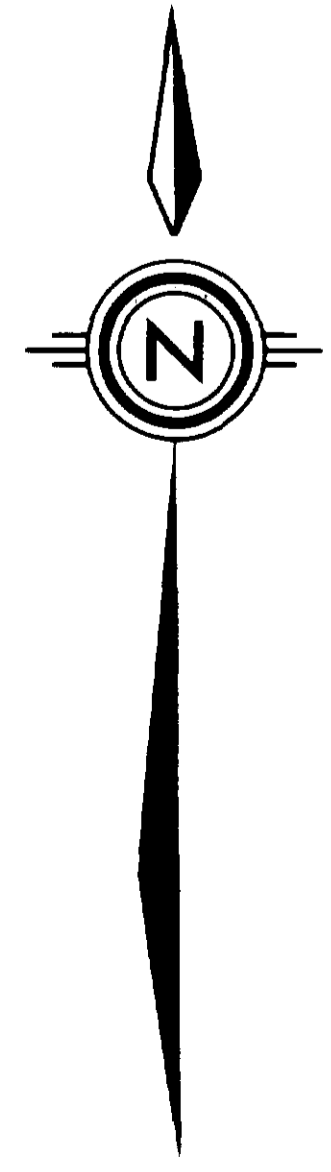




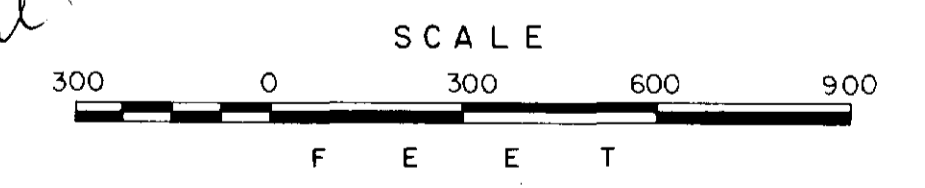


**LEGEND**

- EARLY PRECAMBRIAN**
- Mafic Dike Rocks
    - 10 Diabase
  - Round Lake Batholith Rocks
    - 8 Foliated trondhjemite
  - Metamorphosed Intermediate Intrusive Rocks
    - 7a Amphibole lamprophyre
    - 7b Feldspar-quartz porphyry
  - Catherine Group Basalts
    - lamp Basaltic amphibolite, fine to medium-grained (dioritic), may be porphyritic, amygdular with blebs and pods of granitoid material.
- Rock outcrop or area of rock outcrop, boulders
  - Geologic contact
  - Planar foliation in amphibolites (probably of metamorphic derivation); inclined, vertical
  - Schistosity or shearing; inclined, vertical
  - Fault or shear zone
  - Prominent airphoto linear
  - Claim post; located, position approximate
  - Trench or test pit
  - Magnetic attraction



*W.E. Brereton*



**PETROMET RESOURCES LTD.**

BRYCE TOWNSHIP, ONTARIO  
**CLAIM GROUP "C"**  
**GEOLOGY**

Project No: C-465 By: W.E. Brereton  
 Scale: 1:3600 (Approx) Drawn: GCS LTD.  
 Drawing No: 2 Date: October, 1981

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